

Department of Transportation and Public Facilities (DOT&PF)**Alaska Marine Highway System (AMHS)****Author: DOT&PF in collaboration with the Alaska Marine Highway Operations Board (AMHOB)**

DRAFT AMHS Annual Short-term Plan

As of August 3rd, 2022

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Introduction

The mission of the Department of Transportation and Public Facilities (DOT&PF) is to keep Alaska moving through service and infrastructure. The Alaska Marine Highway System (AMHS) seeks to provide safe, reliable, and efficient transportation of people, good, and vehicles.

Alaska Marine Highway Operations Board (AMHOB)

Governor Dunleavy signed House Bill 63 (HB 63) into law on August 16, 2021 repealing the Marine Transportation Advisory Board (MTAB) and establishing the Alaska Marine Highway Operations Board (AMHOB). AMHOB advises DOT&PF/AMHS on numerous initiatives.

AMHOB is composed of the DOT&PF Deputy Commissioner assigned to AMHS and eight public members. One seat is from a recognized union representing AMHS employees; one represents Alaska Native organizations; the Gov appoints two; two by Speaker of the House, and two by Senate President. The seats are staggered but established in statute. According to HB 63, in consultation with AMHOB, DOT&PF will prepare a short-term plan and a comprehensive long-range plan that will consist of priorities and goals with a proposed strategic maintenance and vessel replacement plan. They may also recommend performance measures. Information about this board can be found at the DOT&PF's AMHOB website (<https://dot.alaska.gov/amhob/>).

Purpose of the AMHS Short-term Plan

By statute¹, the purpose of the AMHS Short-term Plan is to describe how effective and efficient progress toward priorities and goals, defined in the pending comprehensive long-range plan, will be attained. It will be updated annually. It will include recommendations for the state operating and capital budgets and a description of skill or competency gaps in the AMHOB board. This plan is submitted to the legislature and the governor and made available to the public. The short-term plan is prepared by DOT&PF in consultation with the Alaska Marine Highway Operations Board (AMHOB).

Overview

The Alaska Marine Highway System (AMHS) stretches over roughly 3,500 miles of coastline, from Bellingham, Washington, to Unalaska in the Aleutian Island chain. The ferry system plays a significant role in connecting communities that would otherwise be cut off from the rest of the state and reducing the cost of living by giving residents of smaller communities access to lower-priced goods and services available in larger, nearby communities. The fleet of vessels operate year-round to provide essential transportation to over 35 coastal communities. Vessels are designed to carry passengers and vehicles ranging in size from motorcycles to large freight containers.

This Short-term Plan is intended to illustrate the baseline and potential direction of operations, capital investments, and asset retirements within the context of strategic goals as outlined in the draft DOT&PF Statewide Long-term plan. In general, DOT&PF seeks to run what we have and build what we need

¹ Housebill 63

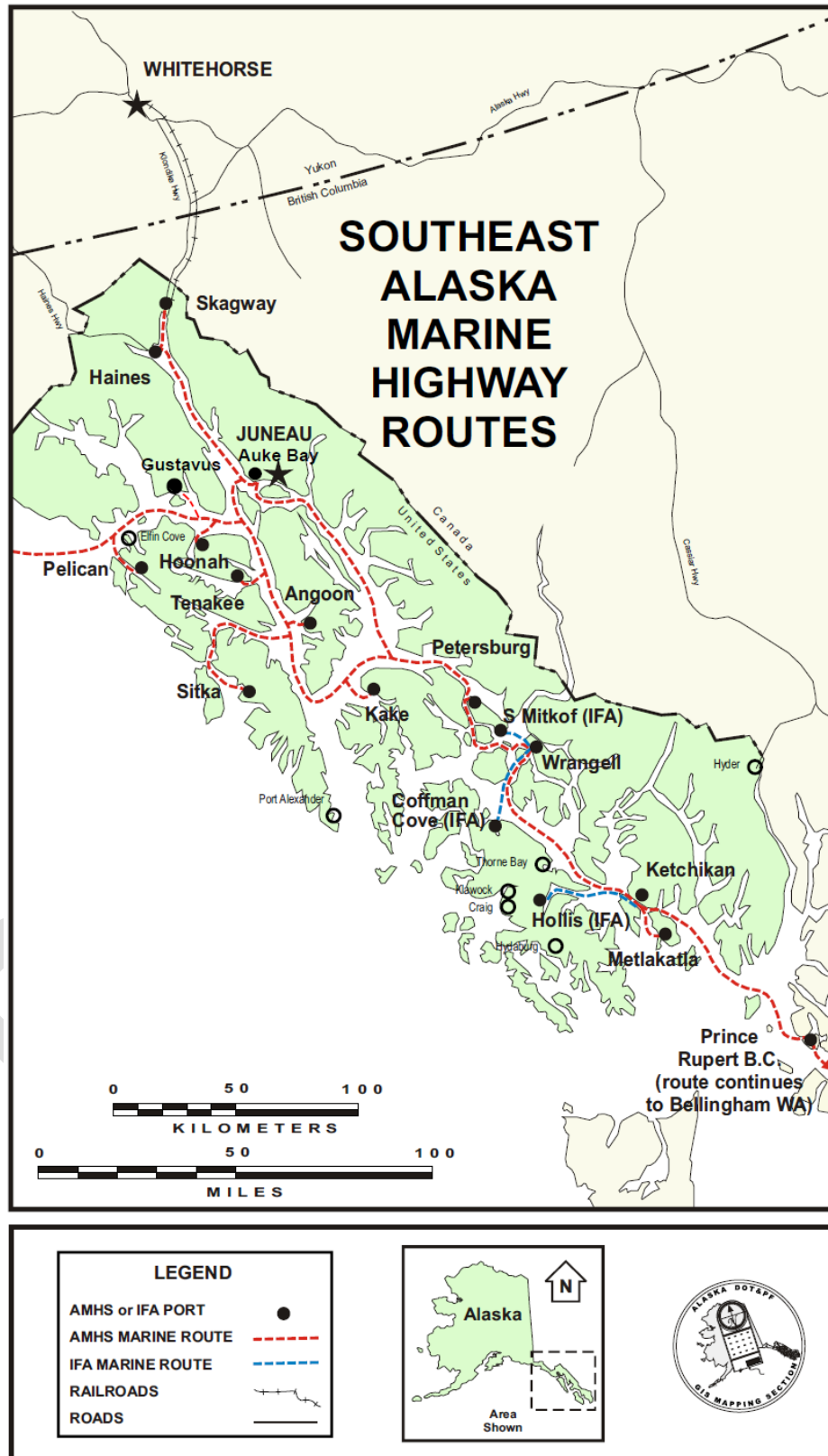


Figure 1: Southeast AMHS Routes²

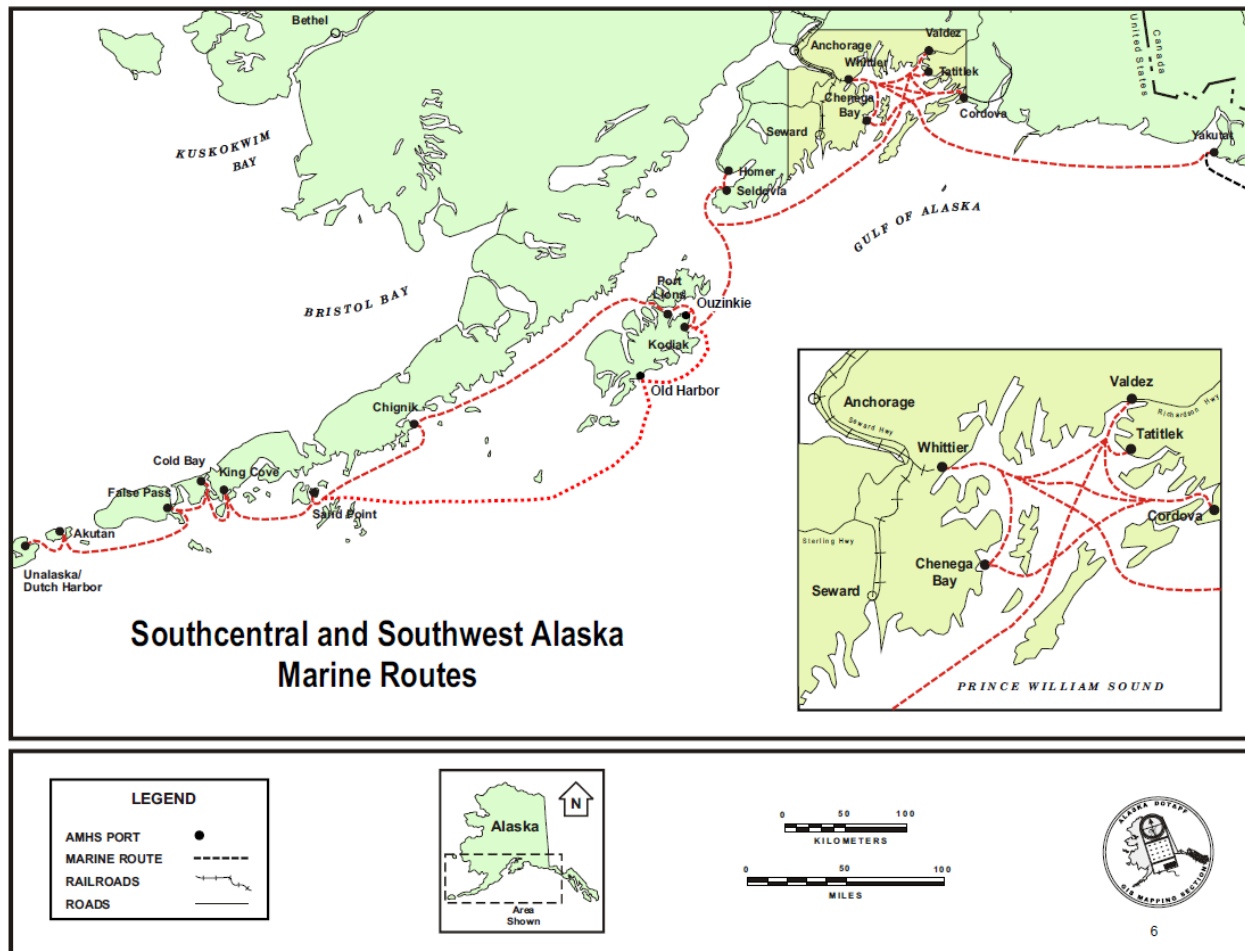


Figure 2: Southcentral and Southwest AMHS Routes

- AMHS includes 9 active ferries, serving 33 ports in Alaska; Prince Rupert, British Columbia; and Bellingham, Washington.
- Since 2016, AMHS traffic volumes are trending steadily downward. In recent years, farebox recovery dropped from about 50 percent of operating costs to about 30 percent.
- The pandemic hit ferry service hard. The AMHS served 52,196 passengers and 27,006 vehicles in 2020, down from 190,118 passengers and 77,203 vehicles in 2019.
- Reliability is an issue because of mechanical failures due to the aging fleet and weather delays. AMHS ferry schedules have varied from year to year, based on available funding levels and operating budgets.
- AMHS is currently the only marine route recognized as a National Scenic Byway and All-American Road.
- AMHS uses a combination of federal, state, and fare box revenue to operate and maintain the system.

² 2021 DOT&PF AMHS Shore Facilities Condition Survey Report

Overview of IIJA and Short-term Funding Opportunities

- With constant updates coming, DOT&PF is evaluating the potential of the Bipartisan Infrastructure Law (BIL) to support the operational and capital funding needs of AMHS. Information to pertinent fact sheets:
- \$1 billion for a new program that establishes an essential ferry service to support rural communities. Assuming Alaska will receive \$180M per year¹.
- \$250 million for an electric or low-emitting ferry pilot program, with at least one pilot to be conducted in the state with the most Marine Highway System miles—Alaska.
- \$342 million for the Construction of Ferry Boats and Ferry Terminal Facilities Program, of which Alaska should receive \$73 million. Provides authorization for recipients of funding under the program to spend on the ferry system “operating costs.”
- Ferry Boat Formula fund increases may provide Alaska an additional \$16-20 per year. AMHS will likely complete dock projects with these additional funds.

Asset Management Program

AMHS oversees the preservation, maintenance, and capital improvement of existing ferry terminals and vessel. It also oversees the construction of new vessels and terminals. AMHS is responsible for 38 terminals and nine vessels.

Asset Management Goals

Key themes of DOT&PF’s draft Long Range Term Plan “Alaska Moves 2050”, drive strategic goals for DOT&PF family of plans and are detailed in the below table. Focus areas, specific to AMHS are identified to make progress towards the long-term strategies.

DOT&PF Strategic Themes	Focus Areas
Safety	<ul style="list-style-type: none"> • Vessel Repair
State of Good Repair	<ul style="list-style-type: none"> • Preservation and Maintenance of Terminals and Vessels
Economic Vitality	<ul style="list-style-type: none"> • New Service Vessels • New Terminals
Resiliency	<ul style="list-style-type: none"> • Fleet Modernization • Vessel Replacement • Terminal Upgrades
Sustainability	<ul style="list-style-type: none"> • Vessel Hybrid Conversion • Terminal Electrification • Electric Shuttle Ferry Construction • Energy Efficient Operational Strategies
Mobility	<ul style="list-style-type: none"> • Increased Service

In addition, there are Asset Management goals which aren’t captured in the above themes.

Goals:

1. All terminal and vessel capital projects are completed on budget.
2. Vessel out-of-service time is reduced to that which is strictly necessary.

Vessel Considerations

Fleet Status

Fleet status is determined by the annual Fleetwide Condition Survey Reports completed by Glosten Associates. The objectives of these surveys to is describe the current vessel condition and create a database of maintenance needs.

To maintain the fleet, these vessel surveys are conducted for every vessel in collaboration with our vessel staff and term contractor, Glosten. Each survey has a matrix summarizing work items for that vessel, as shown in the upper left. It is broken down by cost and priority. Priority ranking is based on urgency and type, such as immediate, problematic, preventative, lifecycle, and upgrades. Currently identified work for all vessels (excluding Hubbard), much of which is considered a high priority, is estimated at a rough order of magnitude at \$224m.

Vessel	Year Constructed	Notes	Recommended Work ³	Priority 1 Work ⁴
Matanuska (SOLAS)	1963	The Matanuska is near retirement and may be replaced by the Matanuska Replacement Vessel (MRV) when constructed.	\$ 47,860,000	\$3,490,000
Tustumena	1964	MV Tustumena is near retirement and being replaced by the Tustumena Replacement Vessel (TRV) when completed.	\$ 27,013,750	\$23,302,500
Columbia	1973	Columbia is undergoing a CPP project and will continue to provide mainline service when online.	\$11,099,500	\$2,695,000
LeConte	1974	The LeConte continues to provide	\$4,129,000	\$691,250
Aurora	1977	The Aurora is near for retirement and will need a \$25.0M engine repower federal project to stay in service.	\$17,447,500	\$15,175,000
Kennicott (SOLAS)	1998	Kennicott will continue to provide continue cross-gulf mainline service, finding replacement parts and equipment is already difficult.	\$52,149,000	\$535,000
Lituya	2004		\$958,250	\$235,000

³ ROM estimates are from the Glosten 2020 Fleet Condition Survey. Work completed up not included. Updated

⁴ Priority 1 work, identified in annual Fleet Condition Surveys, has high urgency.

Tazlina	2018	Crew quarters are being added to MV Tazlina. Crew quarters make ACFs equivalent in function to the LeConte and Aurora providing greater flexibility in the operating schedule while increasing capacity.	\$1,690,000	\$425,000
Hubbard	2020	Crew quarters are being added to MV Hubbard.		
TRV (SOLAS)	2028	The Tustumena Replacement Vessel (TRV), and be online by 2028. This vessel will also provide cross-gulf service and run some SE routes if needed.		
MRV	2029	A new mainliner, the Matanuska Replacement Vessel, could be online in 2029.		
2nd New Mainliner	2032	A second new mainliner will be built to replace Kennicott for an estimated \$350M and be online in 2032.		

Vessels go through various capital improvement projects (CIP) to complete upgrades and refurbishments necessary to keep the fleet operational.

VESSEL DESIGN EXPENDITURES					
Project (\$ in 1,000s)	2022 (Balance as of 5/15/22)	2023	2024	2025	2026
AMHS KENNICOTT EMISSIONS AND EXHAUST UPGRADES	\$ 753.5				
AMHS M/V TUSTUMENA REPLACEMENT	\$ 1,816.2				
AMHS M/V TUSTUMENA REPLACEMENT VESSEL	\$ 8,240.4				
AMHS M/V TUSTUMENA UPGRADES	\$ 549.3				
AMHS MATANUSKA DEAD END CORRIDOR	\$ 308.8				
IFA M/V STIKINE PASSENGER ACCOMMODATION UPGRADES	\$ 228.5				
M/V COLUMBIA CPP SYSTEM REPLACEMENT	\$ 221.8				
M/V LITUYA COATINGS AND PRESERVATION	\$ 50.3				
Planning and Design of Mainline Vessel		\$ 10,000.0			
SUBTOTAL	\$ 12,168.8	\$ 10,000.0	\$ -	\$ -	\$ -
VESSEL CONSTRUCTION EXPENDITURES					
Project (\$ in 1,000)	2022 (Balance as of 5/1/22)	2023	2024	2025	2026
AMHS M/V TUSTUMENA UPGRADES	\$ 6,485				
M/V COLUMBIA CPP SYSTEM REPLACEMENT	\$ 13,733				
Hubbard Crew Quarters	\$ 1,846				
IFA M/V STIKINE PASSENGER ACCOMMODATION UPGRADES	\$ 3,066				
M/V LITUYA COATINGS AND PRESERVATION	\$ 2,620				
Matanuska Dead-end Corridors		\$ 33,275			
Tustumena Replacement Vessel		\$ 238,145	\$ 86,856		
Kennicott Exhaust			\$ 12,000		
New Mainliner			\$ 325,000		
LEC Fire Detection				\$ 750	
Tazlina Crew Quarters and Waste System Construction		\$ 23,000			
Vessel Wifi		\$ 1,000			
SUBTOTAL	\$ 27,750	\$ 295,420	\$ 423,856	\$ 750	\$ -
VESSEL OVERHAUL EXPENDITURES					
Project (\$ in 1,000)	2022 (Balance as of 5/1/22)	2023	2024	2025	2026
AMHS VESSEL OVERHAUL AND REHABILITATION	\$ 15,000.0	\$ 15,000.0	\$ 15,000.0	\$ 15,000.0	\$ 15,000.0
Outstanding Maintenance Needs Priority 1 (non-CIP)	\$ 27,150.0				
Outstanding Maintenance Needs Priority 2-5 (non-CIP)		\$ 50,000.0	\$ 83,798.3		
SUBTOTAL	\$ 42,150.0	\$ 65,000.0	\$ 48,798.3	\$ 15,000.0	\$ 15,000.0

Vessel Capital Projects

Details pending

Columbia CPP Project	
Scope	
Schedule	
Estimate	\$13,733,000
Date of SSE	

Low-No Emission Electric Shuttle Ferry	
Scope	tbd
Schedule	tbd
Estimate	tbd
Date of SSE	

Matanuska Dead End Corridors	
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Scope	This project includes the refurbishment and renovation of the passenger accommodation staterooms including wet spaces/restroom/showers, replacement of wasted steel, electrical refurbishments, complete pipe/plumbing and electrical replacements, fire and smoke detector wiring replacements, lead, chromium and asbestos abatement, preservation of exterior and interior structure, vessel upgrades as recommended in the 2018-19 Fleet Condition Survey, the ABS current and future survey status, Coast Guard Inspection status and compliance with existing and pending regulations, stability assessment, sea trials and annual State funded overhaul work and dry-docking.
Schedule	11 months to complete with an overhaul
Estimate	\$33,275,000
Date of SSE	August 2020

Matanuska Replacement Vessel Design	
Scope	
Schedule	
Estimate	Design: \$30,000,000
Date of SSE	

Tazlina Crew Quarters	
Scope	Fund construction modifications to the M/V Tazlina to incorporate sleeping quarters for up to 24 persons, add 8 single person staterooms on the Bridge Deck, and 8 two-person staterooms on the Upper Deck. Additional work includes the installation of a Galley, Scullery, and Mess spaces on the Upper Deck; a new Fan Room on the Bridge Deck; and extension of the existing Port Stair Tower to the Bridge Deck to serve the new accommodations. Construction will include removal of existing furniture and equipment, linings, ceilings, piping, electrical wiring, fixtures, and other outfitting in the Pump Room and Passenger Upper and Bridge Decks. Following removals, the vessel shall be modified by addition of new structure, piping, toilet/shower modules, electrical wiring and fixtures, ceiling, linings, deck coverings, furniture, galley equipment, and fixtures necessary to accommodate the revised vessel arrangement. This project may include the installation of a type three waste management system and other modifications for energy management.
Schedule	Estimated at 10 months to complete with an overhaul
Estimate	\$23,000,000
Date of SSE	December 2021

Tustumena Replacement Vessel	
Scope	Construct a replacement ferry to service so uth central and southeast Alaska coastal communities. Vessel will be Ocean going class to replace the M/V Tustumena.
Schedule	Vessel in operation 2028
Estimate	\$325,000,000
Date of SSE	

Shore Facility Considerations

Shore Facilities Status

Shore Facilities Conditions Survey Reports are completed by DOT&PF's Southcoast Region Marine Engineering Section; the most recent report was completed in 2021. The primary purpose of this survey is to provide an overview of the present condition of the terminals to ensure the safety of the structures, aid planners in programming for future development, assist maintenance personnel with upkeep, and alert AMHS managers of operational constraints. The above water components of each facility are inspected biennially and underwater inspections are performed on a five-year cycle. The ownership and configuration of the facilities vary widely, they include state and foreign-owned ferry terminals, city-owned freight wharves, and privately owned fish processing docks.

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

Figure 3: Shore Facility Condition Survey Report Ranking System

Table 1: Southeast Alaska Shore Facilities Status

Southeast Alaska Facilities			
Terminal	Rating (out of 9)	Owner	Notes
Angoon	6.3		
East Berth	4.8		
Stern Berth	7.0		
Bellingham	7.0	Port of Bellingham	
Gustavus	7.4		
Haines	6.8		
Hoonah	6.7		
Kake	5.8		
Ketchikan, Berth 2	5.8		
Ketchikan, Berth 3	6.3		

Annette Bay (Metlakatla)	7.0		
Port Chester (Metlakatla)	4.3		
Pelican	7.0		Dock modifications are needed for ACFs
Petersburg	6.6		
Prince Rupert	5.0	City of Prince Rupert	
Sitka	7.0		
Skagway	6.2		
Tenakee	4.5		
Wrangell	6.3		
Yakutat	6.3		
Southeast Score	6.2 or 69%		

Table 2: South Central Alaska Shore Facilities Status

Southcentral Alaska Facilities			
Terminal	Rating (out of 9)	Ownership	Notes
Chenega	7.0	North Pacific Rim Housing Authority	Dock modifications are needed for ACFs
Cordova	6.6		Dock modifications are needed for ACFs \$6,180,000
Homer	7.4	City of Homer	
Seldovia	5.0	City of Seldovia	
Tatitlek	6.5	North Pacific Rim Housing Authority	Dock modifications are needed for ACFs
Valdez	9.0		
Whittier	7.7		
Southcentral Score	7.0 or 78%		

Table 3: Table 1: Southwestern Alaska Shore Facilities Status

Southwestern Alaska Facilities			
Terminal	Rating (out of 9)	Ownership	Notes
Akutan	5	Aleutians East Borough	
Chignik	9	Trident Seafoods	
Cold Bay	5	Aleutians East Borough	
False Pass	7	Village of False Pass	
King Cove	5	Aleutians East Borough	

Kodiak (Pier 1)	9	City of Kodiak	
Kodiak (Pier 2)	7	City of Kodiak	
Old Harbor	9	City of Old Harbor	
Ouzinkie	9	City of Ouzinkie	
Port Lions	9	City of Port Lions	
Sand Point	5	City of Sand Point	
Unalaska (Dutch Harbor)	9	City of Unalaska	
Southwest Score	7.3 or 81%		

SHORE FACILITIES DESIGN EXPENDITURES					
Project (\$ in 1,000s)	2022 (Balance as of 5/1/22)	2023	2024	2025	2026
System-wide Uplands Improvements	\$ 234.9				
System Wide Mooring Structure Improvements	\$ 261.9		\$ 1,000.0		
System Wide Bridge Improvements	\$ 243.6		\$ 1,000.0		
Ketchikan Replacement and NOAA Berth Facilities	\$ 16.7				
Ketchikan Ferry Terminal Improvements	\$ 204.3				
Auke Bay Terminal Building & Electrical Improvements	\$ 206.1				
Prince Rupert Ferry Terminal Acquisition & Refurbishment	\$ 2,237.3				
Auke Bay East Terminal Improvement	\$ 700.0	\$ 500.0			
Angoon Ferry Terminal Modifications	\$ 300.0	\$ 600.0			
Ketchikan Berth II Electrical Improvements		\$ 350.0			
Pelican Ferry Terminal Improvements		\$ 1,500.0			
Cordova Ferry Terminal Modifications		\$ 300.0			
Tatitlek Ferry Terminal Improvement	\$ 500.0	\$ 1,000.0			
Chenega Ferry Terminal Improvement	\$ 500.0				
South Tongass Ferry Terminal		\$ 500.0	\$ 300.0		
Skagway Terminal Refurbishment		\$ 500.0	\$ 1,000.0		
Port Electrification Project		\$ 1,000.0	\$ 1,000.0		
SUBTOTAL	\$ 5,404.8	\$ 6,250.0	\$ 4,300.0	\$ -	\$ -
SHORESIDE CONSTRUCTION EXPENDITURES					
Project (\$ in 1,000)	2022 (Balance as of 5/1/22)	2023	2024	2025	2026
Prince Rupert Ferry Terminal Acquisition & Refurbishment	\$12,990.7				
Auke Bay East Terminal Improvement			\$12,000.0		
Angoon Ferry Terminal Modifications			\$3,500.0		
Ketchikan Berth II Electrical Improvements		\$1,500.0			
Pelican Ferry Terminal Improvements			\$13,500.0		
Cordova Ferry Terminal Modifications			\$6,180.0		
Tatitlek Ferry Terminal Improvement			\$10,575.0		
Chenega Ferry Terminal Improvement			\$12,575.0		
Cascade Point Lease Payments (state 1st year)	\$10,000.0	\$10,000.0	\$10,000.0	\$10,000.0	
Skagway Terminal (Replace Float) or Refurb *(\$6m or 26m)			\$6,000.0		
Ketchikan Berth III Terminal Improvements (Fender System)*	\$3,600.0				
System-wide Bridge Improvements	\$1,500.0	\$1,500.0	\$1,500.0	\$1,500.0	\$1,500.0
System-wide Mooring System Improvements	\$1,600.0	\$1,600.0	\$1,600.0	\$1,600.0	\$1,600.0
South Tongass Ferry Terminal				\$12,300.0	
Port Electrification Project		\$ 3,000.0			
SUBTOTAL	\$ 29,690.7	\$ 17,600.0	\$ 77,430.0	\$ 25,400.0	\$ 3,100.0

Shore Facility Capital Projects

Angoon Ferry Terminal Improvements	
Scope	
Schedule	
Estimate	\$4,100,000
Date of SSE	

Auke Bay Ferry Terminal: East Berth	
Scope	Stage 1: Make improvements to the existing AMHS Auke Bay Ferry Terminal East Berth offshore dolphin structures. Improvements would include: replacement of 5 each, pile supported berthing dolphins, replacement of 2 each pile supported float restraint structures, replacement of pile supported gangway supports, catwalk and gangway upgrades, and electrical lighting improvements. The existing terminal was constructed in 1982. The pile supported structures are essential features needed to berth the AMHS ferry vessels. The existing structures have extensive section loss due to corrosion and the potential for structural failure is high.
Schedule	Year 1-2 Design; Year 3 Construction
Estimate	\$8,715,000
Date of SSE	5/5/2022

Auke Bay Ferry Terminal Building Refurbishment	
Scope	Refurbish the existing Auke Bay Ferry Terminal building structure.
Schedule	Under Construction
Estimate	\$2,870,000
Date of SSE	Final PDA per Kirk Miller

Cascade Point Terminal	
Scope	A new dock at Cascade Point may be built in 2026. The Reshaping Working Group report recommended a terminal be built at Cascade Point, stating that ACF crew quarters would not be needed with this terminal. An ACF with crew quarters can operate on the shorter Lynn Canal route from Cascade Point while also running longer routes to Angoon and Hoonah. Without crew quarters, an ACF will not make the round-trip from Cascade Point to these ports in a 12-hour window.
Schedule	
Estimate	\$36,000,000
Date of SSE	

Cordova Ferry Terminal Improvements	
Scope	Make improvements and modifications to the existing ferry terminal to accommodate the ACF Class Vessel (M/V Hubbard) and the Aurora Class vessel. The existing terminal is owned and maintained by the AMHS. Work would include removal of 2 floating fenders and replacing with fixed-fender dolphins and catwalks for improved mooring and line handling along the face of the dock. Work would also include modifications the stern

	berth required to accommodate the ACF vessel. This work would include a new fixed-fender dolphin farther out and removal of submerged debris.
Schedule	Year 1-2 Design; Year 3 Construction
Estimate	\$6,180,000
Date of SSE	5/10/2022

Chenega Ferry Terminal	
Scope	Construct new side berth ferry terminal facility at the Chenega dock to accommodate the Alaska and Aurora Class ferry vessels. Improvements would include the provision of a new side loading ferry terminal structures including pile supported approach dock structure, vehicle transfer bridge, bridge support float and two mooring dolphins. An end loading terminal (which would be less cost) may also be feasible at location of existing tidal ramp ferry berth but it appears to conflict with existing dock uses.
Schedule	Year 1-2 Design; Year 3 Construction
Estimate	\$12,575,000
Date of SSE	5/9/2022

Ketchikan Ferry Terminal	
Scope	Stage II: This project will remedy structural and operational deficiencies at the Ketchikan AMHS Ferry Terminal. This project will replace and refurbish existing vessel mooring and berthing structures, provide a new mooring dolphin structure and construct upland access and terminal building improvements.
Schedule	FY24 construction
Estimate	\$3,100,000
Date of SSE	

Tatitlek Ferry Terminal	
Scope	Construct a new end berth ferry terminal facility at the Tatitlek dock to accommodate the Alaska and Aurora Class ferry vessels. Improvements would include the provision of new end loading ferry terminal structures including vehicle transfer bridge and bridge support float (or lift bridge support) at the location of the existing tidal ramp ferry facility.
Schedule	Year 1-2 Design; Year 3 Construction
Estimate	\$10,575,000
Date of SSE	5/9/2022

Pelican Ferry Terminal	
Scope	Construct a new ferry terminal or modify the existing terminal to accommodate the ACF Class Vessel (M/V Tazlina) and the Leconte Class vessel. The existing terminal is owned and maintained by the City of Pelican and AMHS operates under an MOA. The terminal is currently configured for the Leconte Class vessel only, and the ACF vessel can not be accommodated without reconfiguration or by installing a separate facility. Work for a new terminal would include construction of an access road, 130' x 20' trestle, 100'

	transfer bridge, float and apron structure, 4 offshore mooring structures, and a waiting shelter.
Schedule	Year 1-2 Design; Year 3 Construction
Estimate	\$13,500,000
Date of SSE	4/7/2022

Skagway Ferry Terminal	
Scope	Replace existing mooring float and transfer bridge, refurbish existing side berth mooring structures and construct new mooring structures to provide end berth for Alaska Class Ferry vessels.
Schedule	Undetermined and possibly obsolete
Estimate	\$28,980
Date of SSE	6/8/18

South Tongass Ferry Terminal	
Scope	
Schedule	tbd
Estimate	\$12,800,000
Date of SSE	none

Port Electrification	
Scope	Location to be determined.
Schedule	
Estimate	\$11,700,000
Date of SSE	

Shore Facility Improvements Timeline
pending

Asset Management Program Recommendations

Replace and upgrade aging infrastructure.	<ul style="list-style-type: none"> Construct new vessels to replace those beyond retirement Upgrade terminal facilities for system flexibility
Invest in technology to support the management of vessel and terminal assets and improve passenger experience.	<ul style="list-style-type: none"> Define and track metrics to inform system planning. Maximize utilization of system capacity through adaptive management strategies such as an expanded reservation system, an improved fare structure, and fare collection methods.
Design a fleet that is future-ready and sustainable.	<ul style="list-style-type: none"> Plan vessels and terminals to be flexible and adaptable to emerging technologies and new transportation options. Construct a low-no emission ferry, for use on suitable routes. Complete shoreside infrastructure improvements needed to support low-no emission ferries. Incorporate commercially available modern technologies, where practicable, on the current fleet.

	<ul style="list-style-type: none"> Highlight sustainability through organizational structure, decision-making, and reporting
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Asset Management Program Performance Metrics

DOT&PF Strategic Themes	Metric	Current Value
Safety	Pax injuries per 1,000 pax; OSHA recordable crew injuries per 1,000 revenue service hours.	
State of Good Repair	Shore Side Facilities State of Good Repair Score	
Economic Vitality		
Resiliency		
Sustainability		
Mobility		
Management Goals		
	Metric	Current Value
All terminal and vessel capital projects are completed on budget.	% of terminal projects completed on time/budget; % of vessel projects completed on time/budget	
Vessel out-of-service time is reduced to that which is strictly necessary.	Avg. Vessel out-of-service time	

Operating Program

AMHS serves 33 communities over 3,500 marine miles through international waters to two countries. In FY21, AMHS carries over x passengers and x vehicles. In FY21, there were approximately x port calls and x weeks of service. There was no service to Prince Rupert because the United States/Canadian border was closed due to COVID-19 concerns.

Operating Goals

1. Establish and maintain a reliable and predictable service.
2. Achieve sufficient manning levels to avoid crewmember holdovers and overtime.
3. Establish vessel energy management plans that reduce operating costs.

Service level and budget aspirations?

Operating Considerations

Operating Principles

- We will err on the side of safety when making decisions —the safety of our crew and passengers takes priority over the schedule and cost.
- We believe that the best service is provided by our employees sailing AMHS vessels, however, we will pursue creative solutions in order to maintain published service.
- We maintain a modernized fleet through proactive maintenance and preservation planning.
- We communicate often and openly to the public and staff and value all input.
- We strive to offer an agile schedule that reflects demand in a dynamic and evolving world because if there is reliable, sustainable, affordable service passenger levels will increase.

Operating Schedule

Winter schedule pending

Proposed Service (10/1/2022-6/30/2022)

AMHS is currently running with a reduced level of service that aligns with available resources. As part of the Service Restoration Plan, AMHS will redefine service levels for the people and businesses we serve.

Vessel Availability

Lack of vessels, through extended overhauls or unexpected maintenance requirements, restricts options for serving our ports.

Crew Availability

AMHS is nothing without the people working daily to keep vessels running, provide passengers with services, book reservations, maintain schedules, and keep us in regulatory compliance. DOT&PF is fortunate to have a committed staff who want to make a difference and create a system we can all be proud of. That being said, staff are burning out due to national staffing shortages in the maritime industry, this is our foremost critical problem. The shortage of qualified crewmembers threatens the ability of AMHS to man the fleet. Being short-staffed, vessels are frequently at risk of going into lay-up and sail with a crew operating by extensive holdovers and significant overtime status, leading to low morale. Since 2019, AMHS has lost more staff annually than recruitment efforts can replace. For every person hired, 1.8 people leave.

Table 4: Employees Hired and Separated 2019 to 2022⁵

	2019	2020	2021	2022
Hired Steward	63	15	47	5
Hired Engine	7	2	4	0
Hired Deck	6	2	7	0
Hired Terminals	2	15	9	2
Hired Shoreside	0	4	16	5

⁵ Information current as of 2/22/22. Source: Atlas

Total Hired	78	38	83	12
Resigned	111	62	67	9
Retired	19	15	13	1
Terminated	26	19	17	1

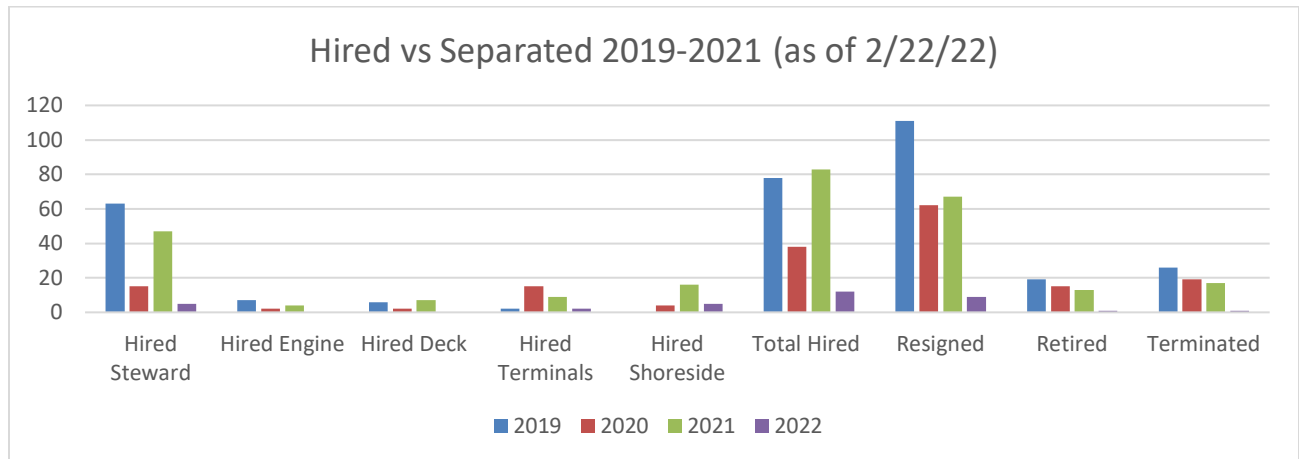


Figure 4: Employees Hired and Separated 2019 to 2022

Alternate Service

In striving to provide customers with predictable and reliable travel, AMHS seeks to minimize unexpected cancellations while providing critical service to customers depending on the ferry system. Both vessel and crew availability are continuously monitored. A Service Restoration Plan is being drafted to make operational decisions based on resource availability in a transparent framework that can be communicated on a regular basis.

Table 5: Service Level Scenarios based on Vessel and Crew Availability

	Proposed Service	Alternate Service	Ideal Service
Mainline: SE Alaska			
Prince Rupert			
Mainline: Cross Gulf			
Mainline: South Central			
Mainline: Southwest			
Metlakatla			
Angoon			
Gustavus			
Hoonah			
Haines			
Skagway			
Valdez			
Cordova			

Seldovia			

Operating Budget

	FY2019 Final Authorized	FY2020 Final Authorized	FY2021 Final Authorized	CY2022	CY2023 Governor's Proposed	Δ	Δ%
Total Planned Weeks of Service	345.9	254.3	286.7	249.5	362.7	113.2	45%
<i>Weeks of Service Excluding LIT</i>					313.1		
<i>Metlakatla (LIT) Weeks of Service</i>					49.6		
Planned Port Calls	5,914	4,399	4,959	4,166	6,311	2,145	51%
Budgeted Revenue	\$ 51,697.6	\$ 48,070.2	\$ 51,779.1	\$ 53,365.1	\$ 53,314.8	\$ 7,829.6	17%
<i>Actual Revenue</i>	\$ 50,804.0	\$ 28,257.0	\$ 27,862.0	\$*41,000.0			
Planned Fare Box Recovery	37%	44%	47%	33%	38%		
<i>Actual Fare Box Recovery</i>	36%	29%	29%	*22%			
Fund Source							
Unrestricted General Funds (UGF)	\$ 86,005.5	\$ 46,002.2	\$ 54,011.0	\$ 63,401.6	\$ -	\$ (63,401.6)	-100%
Designated General Funds (DGF)	\$ 52,070.1	\$ 55,492.6	\$ 53,151.4	\$ 5,425.7	\$ 5,000.0	\$ (425.7)	-8%
Other	\$ 2,167.7	\$ 8,071.3	\$ 2,150.0	\$ 1,308.3	\$ 859.7	\$ (448.6)	-34%
Federal- Relief Funding	\$ -	\$ -	\$ 1,122.4	\$ 112,768.0	\$ -	\$ (112,768.0)	-100%
Federal Funds (Including IJJA/BIL)	\$ -	\$ -	\$ -	\$ -	\$ 135,894.7	\$ 135,894.7	100%
Operating Total	\$ 140,243.3	\$ 109,566.1	\$ 110,434.8	\$ 182,903.6	\$ 141,754.4	\$ (41,149.2)	-22%
				AMHS less Forward Funding		\$ 23,086.9	19%

Figure 5: CY23 Governor's Proposed Operating Budget

Operating Recommendations

Draft and maintain a Service Restoration Plan and update weekly.	<ul style="list-style-type: none"> Definite critical service levels, optimal service levels, and growth service level. Facilitate improved customer communications. Provide transparency into operational decision-making.
Stabilize system operations to offer reliable scheduling.	<ul style="list-style-type: none"> Launch a Preservation and Maintenance Program for vessels and terminals that maintain a consistently good state of repair. Streamline and optimize the fleet composition to realize enhanced efficiencies and redundancy. Enhance connections for all users.
Establish a workforce development plan to support recruitment, retention, professional development, and training.	<ul style="list-style-type: none"> Establish a workforce development plan.
Draft vessel and terminal energy management plans.	<ul style="list-style-type: none"> Establish vessel energy management plans. Establish terminal energy management plans.

Operating Program Performance Metrics

Goal	Metric
Establish and maintain a reliable and predictable service.	On-time performance level (% of trips departing within 10 minutes of scheduled time); service reliability level (% of scheduled trips completed)
Achieve sufficient manning levels to avoid crewmember holdovers and overtime.	% of overtime hours over straight time hours
Establish vessel energy management plans that reduce operating costs.	Annual operating cost per revenue service mile; gallons of fuel consumed per revenue service mile

Near-term Capital Investments (0-2 years)

AMHS Projects in Draft STIP Amendment #4		
NEED NAME	Phase	FFY23
Chenega Ferry Terminal Improvements	Design	\$900,000
Pelican Ferry Terminal Improvements	Design	\$900,000
Tatitlek Ferry Terminal Improvements	Design	\$900,000
Angoon Ferry Terminal Improvements	Design	\$600,000
Auke Bay Ferry Terminal Modification and Improvements	Design	\$500,000
Cordova Ferry Terminal Improvements	Design	\$450,000
South Tongass Ferry Terminal (Saxman)	Design	\$500,000
Tazlina Crew Quarters	Construction	\$24,000,000
AMHS Tustumena Replacement Vessel	Construction	\$238,144,450
Cascade Point	Other	\$30,000,000
Matanuska Dead-End Corridors ⁶		\$34,000,000
<i>Sub-total</i>		\$330,894,450

Projects Currently in STIP 20-23		
NEED NAME	Phase	FFY23
Skagway Terminal Modifications	Construction	\$22,600,000
AMHS Gustavus Ferry Terminal Modifications	Construction	\$905,000
Auke Bay Ferry Terminal East Berth Mooring Improvements	Construction	\$6,000,000
Ketchikan Ferry Terminal Improvements Stage II	Construction	\$3,000,000
Auke Bay Ferry Terminal Building Refurbishment	Construction	\$2,150,000
<i>Sub-total</i>		\$34,655,000

⁶ Matanuska Dead-End Corridors is not in STIP Amendment #4 but may be added during public comment

Alaska Marine Highway Operations Board Competency Review

A description of skill or competency gaps in the AMHOB board.

List of needed skills or competencies

- Enterprise
- Architecture
- Business operations
- Financial management
- Risk management
- Marine operations
- Strategy
- Regulatory compliance
- Ship maintenance
- Construction
- Repair
- Logistics
- Supply chain management
- Engineering
- Project management & controls
- Quality Management
- Continuous Improvement
- Sales and marketing
- Communication
- Customer Interface
- Experience Management

Maritime Union Updates

pending
